# UNIVERSITY OF TORONTO
# UNIVERSITY EXTENSION

### DIRECTOR: J·R·GILLEY · B·A·Sc·

C O U R S E

in

## HIGH SPEED DATA-PROCESSING SYSTEMS.

October 1954 - March 1955

During the last five years high speed electronic digital computers have rapidly come into use for engineering and scientific calculations. Still more recently, these machines have been adapted to the automatic processing of data and information arising out of business operations. High speed data processing machines have already been applied to handling insurance policies, payroll and cost accounting, inventory control reservation systems and production line planning.

This course is intended to provide the background for assessing these new methods in business operation. Starting from first principles, the terminology and functional components of data processing systems will be described. The advantages and difficulties of introducing these systems will be presented, and a comparative study made of existing facilities. A number of representative applications will be treated in detail.

Applicants need have no specialised knowledge of mathematics. They should however, have some interest and experience in a field where the handling of numerical data is important, such as accounting, banking, business management, investment financing or insurance.

LECTURER: Professor C. C. Gotlieb, M.A. Ph.D.
Department of Physics
Chief Computer
Computation Centre
University of Toronto

Time: Thursday evenings, 7.30 p.m.
October 7th to December 9th and January 13th to March 17th

Place: Room 106, McLennan Laboratory

Fee: $25.00

PROGRAMME OF LECTURES ON REVERSE SIDE

*Lifelong Learning*

# HIGH SPEED DATA-PROCESSING SYSTEMS.

## 20 Lectures.

| | | |
|---|---|---|
| Introduction | Scope of Course | |
| | Requirements Of A Data Processing System | (1)* |
| | | |
| Representation | Binary Arithmetic, Floating Point System, | (1) |
| of Information | Coded Decimal Notations | |
| | Alphabetic Representation | (1) |
| | | |
| Functional Units | Arithmetic Unit, | (1) |
| | Store, | (1) |
| | Control, | (1) |
| | Input-Output Devices | (1) |
| | | |
| Coding and | The Order Code of a Computer, | (1) |
| Programming | Programming, | (1) |
| | Checking | (1) |
| | | |
| Comparative Study | I.B.M. 701, 702, 704, | (1) |
| of Data Processing | Remington Rand, UNIVAC, 1101, | (1) |
| Systems | Smaller Machines (C.R.C. 102-A, Elecom) | (1) |
| | | |
| Sample Problems | Transportation Problem, | (1) |
| | Life Insurance Calculations, | (2) |
| | Payroll Calculations, | (1) |
| | Inventory Control, | (1) |
| | A Logical Problem | (1) |
| | | |
| Summary and | | (1) |
| Prospects | | |

* Figure represents number of lectures